

12. *BUFO QUERCINUS*, Holbr. N. Amer. Herp. v. 1842, 13. Pl. iii.

This quite small species appears to be restricted to very narrow geographical limits, having so far been found only in the neighborhood of Charleston, S. C.

13. *BUFO INSIDIOR*, Girard.—Upper surface of head plane and smooth. Snout subacute, protruding. Mouth moderate, upper jaw slightly emarginated. Tongue elongated, tapering towards both ends. Tympanum inconspicuous. Parotids large and elongated, situated obliquely upon the shoulder. Limbs moderate. First finger equal to the second in length. A metacarpal disk, and a tubercle. Toes slightly webbed at base. Two metatarsal tubercles. Skin papillous above, warty beneath. Above of a bluish slate hue, with black markings. Beneath unicolor, dingy yellow.

Small specimens, perhaps immature, were collected in Chihuahua by Dr. Thos. H. Webb, attached to Comm. Bartlett's party in the survey of the U. S. and Mex. boundary line.

14. *ENGYSTOMA CAROLINENSE*, Holbr. N. Amer. Herp. First ed. i. 1836; 83. Pl. xi., and 2d ed. v. 1842, 23. Pl. vi.—DUM. and B. Erp. gen. viii., 1841, 743.

Found in South Carolina, Georgia, Florida, Louisiana and Mississippi.

15. *ENGYSTOMA RUGOSUM*, Dum. and B. Erp. gen. viii., 1841, 744.

Said to occur in the same regions as the preceding species. Have never observed it, and therefore cannot endorse it as a North American species.

The following amendments to the By-Laws were adopted :

*Chapter viii., Art. 1.* No specimen of Natural History contained in the collections of the Academy shall be loaned from the Hall, under any pretence, or for any purpose whatever.

*Chapter xii., Art. 2.* Every proposition to alter or amend these By-laws shall be submitted, in writing, at a meeting for business, and if adopted by the affirmative votes of two thirds of the members present, it shall be read at the meeting for business next succeeding; and then, if adopted by the affirmative votes of two-thirds of the members present, it shall be again read at the next succeeding meeting for business, and on receiving the affirmative votes of two-thirds of the members present, it shall become a part of these By-Laws; *Provided*, that at least twelve members be present at each of the three readings.

The following Article was added to Chap. XII :

*Chapter xii., Art. 3.* No one, or more, of the By-Laws of this Academy shall be suspended.

#### ELECTION.

Dr. William S. M'Ilhenny and Job R. Tyson, Esq., of Philadelphia, were elected *Members*.

*June 6th.*

Vice-President LEA in the Chair.

Letters were read—

From the Royal Saxon Society of Sciences, dated Leipzig, 27th Feb., 1854;

From the Royal Academy of Sciences of Vienna, dated Jan. 18 and Jan. 28th, 1854 :

From the Fürstlich Jablonowskischen Gesellschaft zu Leipzig, dated 13th Jan., 1854; and from the Belfast Natural History Society, dated 31st Dec., 1853; severally transmitting donations to the Library announced this evening.

From the Librarian of the Pennsylvania State Library, dated Harrisburg, June 1, 1854;

From the Trustees of the New York State Library, dated Albany, May 26th, 1854; and

From the American Philosophical Society, dated August 20, 1854, severally acknowledging the receipt of recent publications of the Academy.

From Dr. M. H. Houston, dated Wheeling, Va., May 22d, 1854, presenting the Indian remains deposited in the Cabinet by Mr. Ellet, through Dr. C. D. Meigs, May 16th, 1854.

Dr. Hallowell presented for publication in the Proceedings, two papers, entitled respectively, "Descriptions of New Reptiles from California;" and "On a genus and species of Serpent from Honduras, presumed to be new," both of which were referred to Dr. Leidy, Dr. Le Conte, and Col. McCall.

Dr. Leidy stated that while examining some fossils he had accidentally inspected the fragment of lower jaw, supposed by Harlan to belong to an extinct species of hog, the *Sus americanus*; and which Prof. Owen, after an examination, had considered as a new genus, *Harlanus*, allied to the tapiroid pachyderms, when it immediately occurred to him that it belonged neither to a suiline nor a tapiroid animal, but to a true ruminant, and this, the *Bison latifrons*.

The form of the fragment of jaw is the same as the corresponding portion in the ox, and its robustness is in relation to the size and strength of the head of *Bison latifrons*.

The fossil belonged to a very old individual, as indicated by the production of large fangs to the teeth, and the almost entire removal of the enamelled crown by trituration.

The first of the series of true molars in the specimen exhibits two fangs of dentine united by an isthmus of cementum, (see plate vi. accompanying Owen's memoir, in vol. i. new series, of the Journal of this Academy.)

In the second true molar a line of enamel yet borders the crown. The little prominence in the centre of the dentinal space of the anterior lobe is the remnant of the crescentic enamel island. The middle of the three folds on the outer side, which misled Prof. Owen to suspect an affinity of the animal to *Toxodon*, is nothing more than the remains of the robust accessory column of the molars of *Bison latifrons*, as may be seen by comparing the specimens, or the figures in Owen's plate, with the corresponding part in the figures 6 and 7 of the last molar in plate ii. of my "Memoir on the Extinct Species of American Ox."

The last molar of *Bison latifrons*, indicated in the figures just mentioned, not only exactly fits the corresponding space in the fragment of jaw, but the remaining portion of tooth in the latter is of the same form and size as the corresponding portion of the entire tooth.

If these views be considered as correct, then the *Sus americanus*, or *Harlanus americanus*, ceases to be a distinct animal, and the fossil in question becomes a portion of *Bison latifrons*.

In further confirmation of these facts, a portion of a humerus and a tibia, mentioned in Prof. Owen's paper, and an atlas and a metacarpal bone were discovered by Mr. Couper, with the fragment of jaw, and these had previously been referred to *Bison latifrons* in my memoir above referred to.

Dr. Leidy next called attention to several fossils indicating new species of extinct mammalia.

The first was the crown of a molar tooth discovered by Captain Bowman, U. S. A., in the sands of Ashley river, S. C. It most resembles the left lower penultimate molar of the bear, but the triturating surface is more generally level, and presents less disposition to the formation of cusps. The specimen measures 24 m.m. antero-posteriorly, and 17 m.m. transversely. For the genus and species supposed to be indicated by the specimen the name of *Arctodus pristinus* was proposed.

The other fossils consisted of two specimens loaned by Prof. Hall, of Albany, and constitute part of the collection made by Messrs. Meek and Hayden, during an expedition to Nebraska Territory in the summer of 1853. They were found on Bijou Hill, east of the Missouri River, in a tertiary formation surmounting cretaceous beds.

One of the specimens is an inferior molar of a solipedal animal, apparently intermediate to *Equus* and *Anchitherium*, the enamel folding upon the triturating surface being less complex than in the former, and greater than in the latter. It appears to have had an envelope of crusta petrosa as in the horse, though nearly all removed in the specimen. In size it is relatively long compared to the corresponding teeth of *Anchitherium*, but is short compared to those of *Equus*. Its antero-posterior measurement in 17 m.m. For the genus and species the name of *Hippodon speciosus* was proposed.

The remaining specimen is the fragment of a lower jaw, containing a last premolar and the first true molar of a small ruminant allied to the Musks. The last premolar on the triturating surface presents a series of five folds projecting inwardly. Its measurement antero-posteriorly is 8 m.m. The inner side of the true molar is nearly as plain as in those of *Pebrotherium*. Its measurement antero-posteriorly is also 8 m.m. For the genus and species the name of *Merycodus necatus* was proposed.

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June 13th.

Dr. RUSCHENBERGER in the Chair.

A letter was read from Dr. W. P. Gibbons, dated San Francisco, May 16, 1854, transmitting the specimens of viviparous fishes acknowledged this evening; also a paper intended for publication in the Proceedings, entitled, "Descriptions of four new species of Viviparous Fishes from Sacramento River and the Bay of San Francisco. Read before the California Academy of Natural Sciences, May 15th, 1854, by Wm. P. Gibbons, M. D."

Referred to Dr. Le Conte, Dr. Leidy, and Dr. Hallowell.

Dr. Hallowell presented a paper for publication in the Proceedings, entitled, "Remarks on the Geographical distribution of Reptiles, with descriptions of several species supposed to be new, and corrections of former papers;" which was referred to Dr. Leidy, Dr. Da Costa, and Dr. Le Conte.

Dr. Da Costa directed the attention of the Academy to a new process which he had lately employed in making minute injections. In order to insure a greater rotundity and distinctness of the vessels than is usually obtained, he performed a series of experiments with solid substances dissolved in ether, and as evidence of the results he submitted several specimens to the inspection of the members. The substances selected on account of their ready solubility were the resins, and of these the sandarach and the Damarra copal were found to answer best. One ounce of the resin was dissolved in about three ounces, or if mucous membranes were to be injected, in about four ounces of ether. This was then filtered, and enough finely ground yellow or red paint added to give to the injecting mass the